

Theme: Skills Development

Computer Based Skill Development Programmes Through Online to the
Remotest Corners of the Country, Empowering the Rural Poor: An
IGNOU - SAHAJ's Initiative

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Abstract

Indira Gandhi National Open University (IGNOU) - SREI Sahaj collaboration promises to make the on-line computer based skill development programmes made available to the rural youth in digital format through the 27,255 Sahaj Common Service Centers (CSCs) established in the states of Assam, Bihar, Jammu and Kashmir, Orissa, Tamilnadu, Uttar Pradesh and West Bengal. With this initiative, the rural youth will have unprecedented opportunities to acquire IGNOU's internationally recognized certification, diplomas, degrees right in their villages through computerized CSCs.

These programmes will deliver international quality skill development Vocational Programmes at affordable costs to the rural population of India. An estimated 100 million below poverty line rural youth across the country stands to benefit through this partnership programmes. These partnership programmes will help bridge the gaping educational divide within the rural landscape and make advanced Computer Education available to the villagers at their doorsteps.

In this paper, we summarize the implementation details of this project which comes under the Regional Institute of Vocational Education and Training-East Zone (RIVET-EZ) of IGNOU, respective roles of IGNOU- Srei SAHAJ partnership, role of CSCs with respect to the registration, admission, delivery of the content, evaluation and certification. Finally, we discuss the challenges and other proposed programmes those can be offered through this mode.

Keywords: Online Skill development Programmes, IGNOU-SAHAJ, Common Service Centres.

Introduction

Regional Institute of Vocational Education and Training – East Zone (RIVET – EZ) is a part of Indira Gandhi National Open University (IGNOU) initiatives to provide education at the grassroots. For the eight states in the North-East, IGNOU established IGNOU Institute of Vocational Education and Training (IIVET) which are functional at Shillong and Meghalaya. Four more RIVETS will be set up soon for other zones of the country.

The RIVET – EZ of IGNOU in collaboration with Srei Sahaj e-Village Limited, a subsidiary of Srei Infrastructure Finance Limited, launched skill development vocational programmes at affordable costs for the rural population of India through more than 27,000 Common Service Centres (CSCs) that Sahaj has set up in the states of West Bengal, Bihar, Assam, Uttar Pradesh, Orissa and Tamil Nadu, earlier this year.

A new learning methodology called “Education That Works – Learning System (ETWLS)” is being used to offer these online programmes.

A total of **five programmes** are currently available as a part of ETWLS;

- (i) ***Diploma in Advanced Computing(DAC) of one year duration and***
- (ii) ***Certificate programmes in Java, SQL, Flash and HTML (each of 3-months).***

In order to bridge the rural and urban educational gap, IGNOU and Srei Sahaj partnered to provide training in a blended learning environment to enable students to undertake a range of recognized qualifications. Due to the lack of good computer educational institutes in rural areas, this initiative help students in the villages get quality computer education without hassles of relocation. The programmes are also supported by *chaakri.in*, Srei Sahaj’s job portal dedicated solely to the rural population. All the learners who registered on this portal will be guided for job offers. With this initiative, the rural population is provided with the innovative skill development programmes thereby creating opportunities for the rural youth to become more skilled and technically trained which would further increase their scope of employability. The plan would greatly benefit and augment the growth and development of the socio – economic landscape of rural India. In summary, the advantages of this mode being:

- Online Registration
- Online Programme learning resources, practical support, self assessment
- Online Examination and Certification
- Job Opportunities and guidance through *www. chaakri.in*
- Access to Educational Opportunities
- Personal and Professional Skill Development

In the next section, let us see the role of the CSC.

Common Service Centre Scheme (CSC)

The Common Service Centre Scheme (CSC) is a strategic cornerstone of the National eGovernance Plan (NeGP), approved by the Government in May 2006, as part of its commitment in the National Common Minimum Program to introduce e-governance on a massive scale.

The CSCs would provide high quality and cost-effective video, voice and data content

and services, in the areas of e-governance, education, health, telemedicine, entertainment as well as other private services. A highlight of the CSCs is that it will offer web-enabled eGovernance services in rural areas.

The Scheme creates a conducive environment for the private sector and NGOs to play an active role in implementation of the CSC Scheme, thereby becoming a partner of the government in the development of rural India. The Public-Private-Partnership (PPP) model of the CSC scheme envisages a 3-tier structure consisting of the CSC operator (called Village Level Entrepreneur or VLE); the Service Centre Agency (SCA), that will be responsible for a division of 500-1000 CSCs; and a State Designated Agency (SDA) identified by the State Government responsible for managing the implementation over the entire State.

Srei Sahaj e-Village Ltd. (a subsidiary of Srei Infrastructure Finance Ltd) has made a MoU with RIVET-EZ of IGNOU for offering these programmes. Srei-Sahaj is set to launch over 29,000 CSCs across the country. More than 16,000 CSCs have already been established, providing a single-window, one stop solution to the citizen's needs, under the Public-Private- Partnership (PPP) arrangement.

A total of 32 services are now available at Sahaj CSCs including digital photography, digital video-shoot, NREGA photograph, NREGA data collection, government form submission, information regarding electoral processes- addition and deletion in the electoral roll, data entry (LA and LR), DTP, ROR, Internet, death certificate, birth certificate, property tax payment, agricultural soil testing, agricultural diagnosis, e-Learning, electric bill collection (WBSEDCL), BSNL bill collection, mobile top ups, railway reservation, LIC premium collection, advertising, rural-job portal and examination results. There are many more services in the offing like e-Commerce, matrimonial services, distance and Communication), postal service, IEC (Information, Education and Communication) and infotainment. These CSCs are being utilized for the delivery of the online Diploma and Certificate programmes across the states of Assam, Bihar, Orissa, Tamilnadu, Uttar Pradesh, West Bengal and Jammu and Kashmir in collaboration with IGNOU.

ETWLS: Education that Works – Learning System

The platform can be referred to as a self instructional computational system which functioning via Core Interpretational System controlled decisional logic gates, depends on the efficacy of user input. This is a real time Self Assessment System that not only allows a student, under a distance learning programme, to have hands on experience on a simulation of the subject that is being taught but also assesses the execution of the instructions given on a real time basis. For this system, there is no need of continuous and dedicated connection to the Internet, however at the time of **login** and **logout** it is essential. The CSC is connected to the SAHAJ through VSAT connection. The student's session is being tracked and stored in the system. While the student **login** on the next day, it allows her/him to continue from the topic where s/he has stopped the previous day. On the interface screen there is a dedicated portion demarked to do simulation of the topics discussed. Let us see the Registration and Examination process:

Registration Process

1. The student registers himself/herself at any CSC of his/her choice. This is a fully online process(shown in figure 2). The fee can be paid as one time complete payment or in equal installments.
2. Students are required to submit their documents / photographs, which are then digitized and stored in database for verification (shown in figure 3).
3. To obtain the diploma, the minimum duration is 1 year. This duration can be extended to a maximum period of 4 years. It is important to note, however, that a student must complete the minimum time duration of 1 year in order to get the Diploma.
4. The programme is divided into modules and each module encompasses a specific time frame.
5. If in case, the student fails to complete the Diploma in Advanced Computing (DAC) course within the valid timeline, he/she may have to re-register for the course. This event will involve the student to pay the course fee again.
6. All DAC lessons and its chapters outlined in the programme needs to be successfully completed. Multiple chapters make up a lesson.
7. A lab session is included at the end of every course. This session will be based on all modules.
8. Technical support for IGNOU activities is provided by a dedicated team of eGyankosh, IGNOU. The complete process flow is shown below:

Registration Process Flow

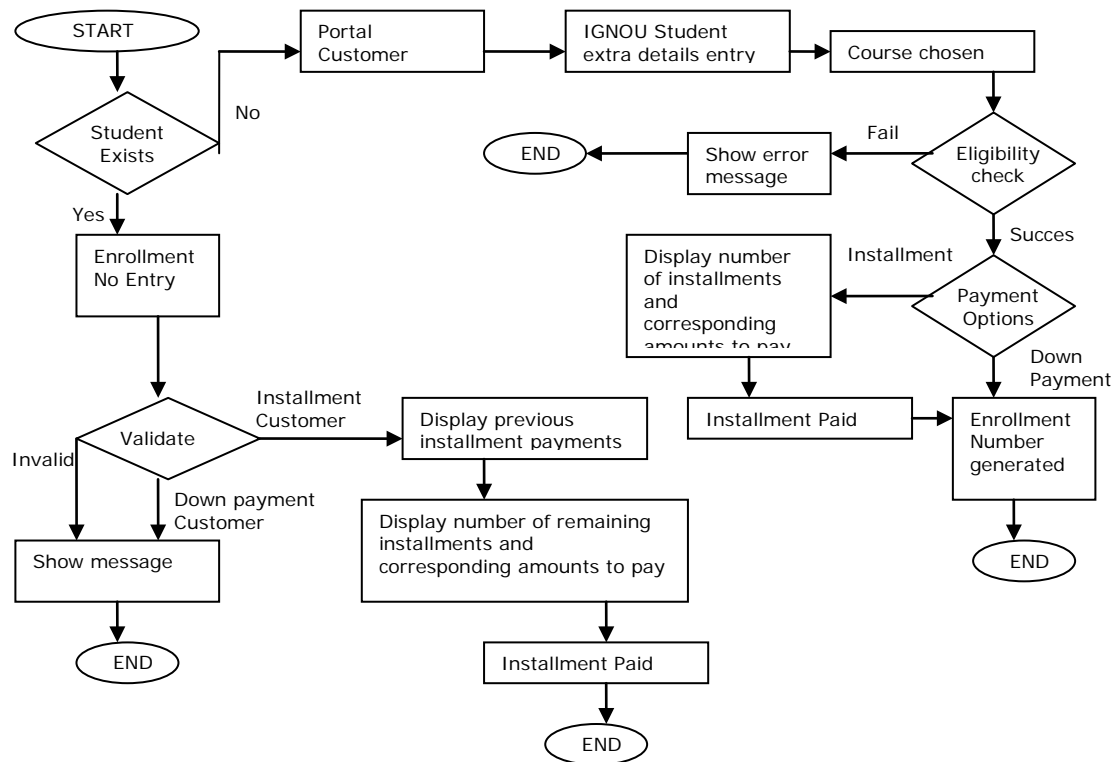


Figure 1: Flowchart depicting the enrollment Process

The screenshot displays the IPMS (Integrated Personnel Management System) User Interface. The top navigation bar contains links for HOME, MENU, HELP, ABOUT, and CONTACT. The main content area shows a form titled 'IPMS RECORD FOUND' with a 'Close' button. The form is divided into several sections:

- Personal Details:**
 - Name of the Student: Bhanu Raj
 - Father's Name: [Blank]
 - Date of Birth: 02-23-1992
 - Gender: M
 - Marital Status: U
 - Religion: Hindu
 - Category: ST
 - Mother's Name: [Blank]
 - Nationality: Indian
 - Registration Date: 03-21-2010
- Academic Details:**
 - School: KATHARU THIRUANGULU, ODALPADA
 - State: ASSAM
 - Pin: 789123
 - Mobile: 9894892141
 - Phone Number: [Blank]
 - City: KATHARU THIRUANGULU, ODALPADA
 - State: ASSAM
 - Pin: 789123
 - Email: Bhanu.Raj@gmail.com
- Mass Subject:**
 - Board/University: BOARD OF SECONDARY EDUCATION ASSAM
 - Marks: 96%

The form also includes a 'Print' button and a 'Close' button at the bottom.

The screenshot shows a web browser window with the address bar displaying a URL from the IGNOU SAKSHI COLLABORATION website. The main content is a scanned image of a 'MARK SHEET OF MADHYAM PAKSHIKA (SECONDARY EXAMINATION) 2005' from the 'West Bengal Board Of Secondary Education'. The sheet is for a student named 'TAPAN ANANDY' with roll number '70281' and seat number '8276'. It details marks for various subjects, including Bengali, English, Hindi, Sanskrit, and Mathematics, with a total of 220 marks. The document is signed by the Head of the Board.

Examination Process

1. Students are required to attempt Multiple Choice Questions (MCQ) as part of their assessment. This will be held in the study centers (CSC) and evaluated only at IGNOU end.
2. A multiple choice question may carry either 1 or 2 marks. Level of difficulty is followed in the generation of the MCQ's for each student.
3. Examination is a secured process. Moderated questions stored in the database are randomized within a given set. No two students can have similar questions.

4. Questions are generated from the server end. So there is no scope of manipulation.
5. Questions in physical or digital form are not available to the students. Nor Sahaj will store them under any circumstances.
6. IGNOU has suggested impromptu centre visits where exams will be held.
7. Minimum duration by the student for a particular module will be taken care of and fee payment for the respective module will be verified before allowing him/her for the examination.
8. If failed second attempt is only after 15 days.
9. System allows completing all the modules in a sequential manner.
10. We have kept a prompt check for the dummy attempts made by the students. These are not allowed and also can be immediately traced.
11. The complete technical support from IGNOU is provided by a dedicated team at eGyankosh, IGNOU. The complete process flow is shown below:

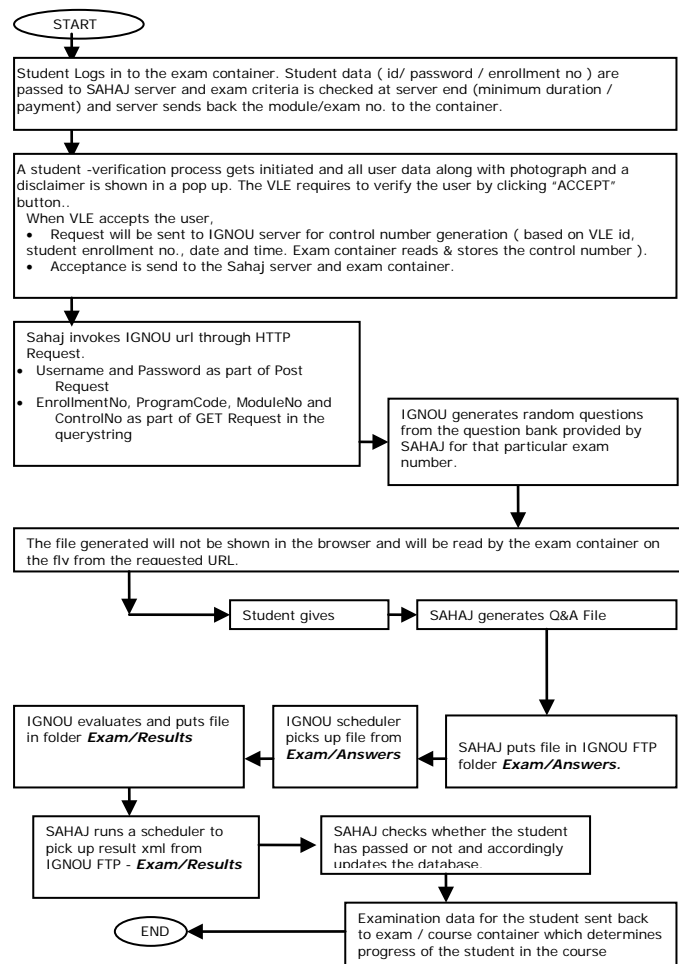


Figure 4: Flowchart Depicting the Examination Process

Security Aspects

Examination is the culmination of the learning process. It also accords the highest priority in terms of security. The designed system is a foolproof system.

The following measures have been implemented in the examination process –

- Student Verification process before each exam will be done by the VLE.
- Generation of a unique ID (Control Number) for each exam that can be used as reference and also to authenticate the student.
- MCQ will be generated from IGNOU-eGyankosh server.
- Process for MCQ generation is extremely secured. Requests are hidden and will be transmitted over a secured connection (Https).
- No copies of MCQ / Result will be stored in the client system.

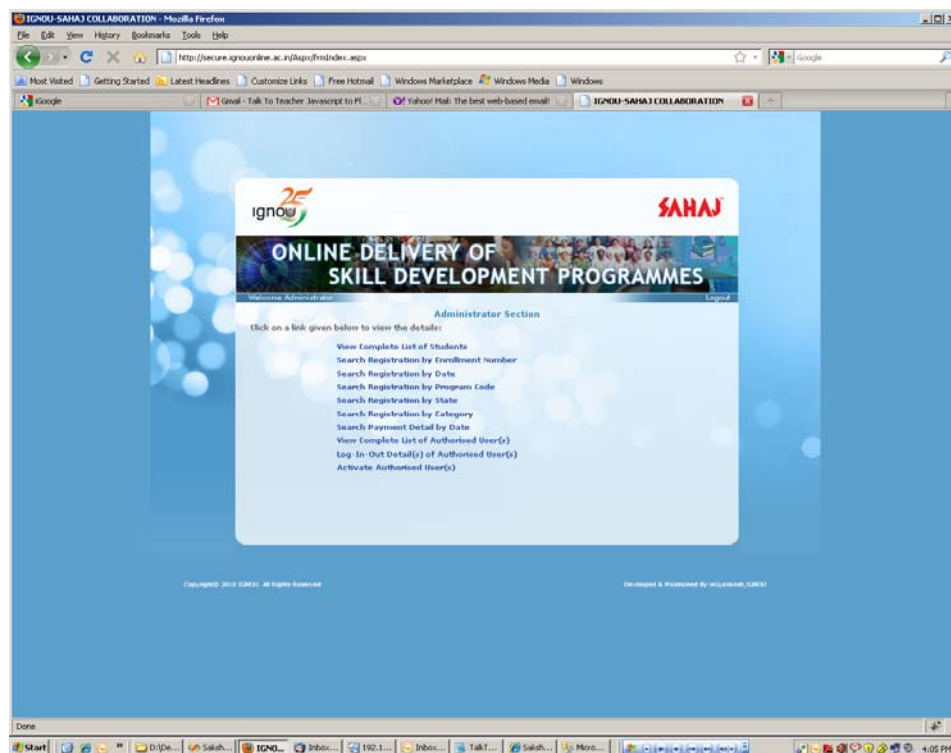


Figure 5: Screenshot of Administrator System designed by eGyankosh team, IGNOU

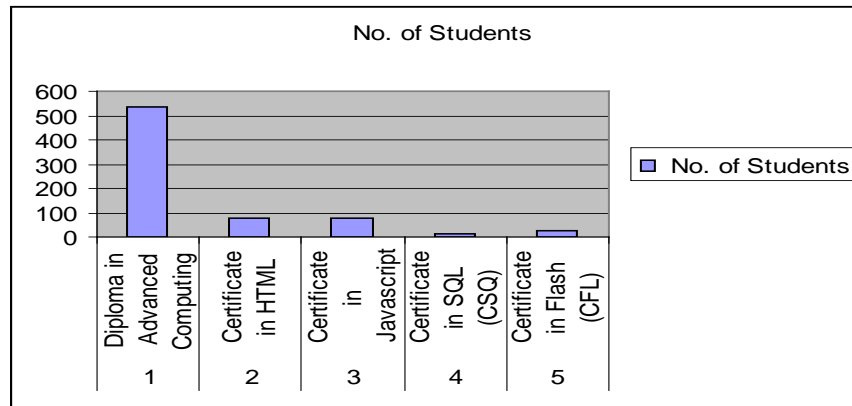
Statistics about the Programmes

Overall Enrollment in all the 5 programmes: 722 students (as on 13th Aug, 2010).

Programmewise Student enrollment

Table 1: Programmewise Enrollment

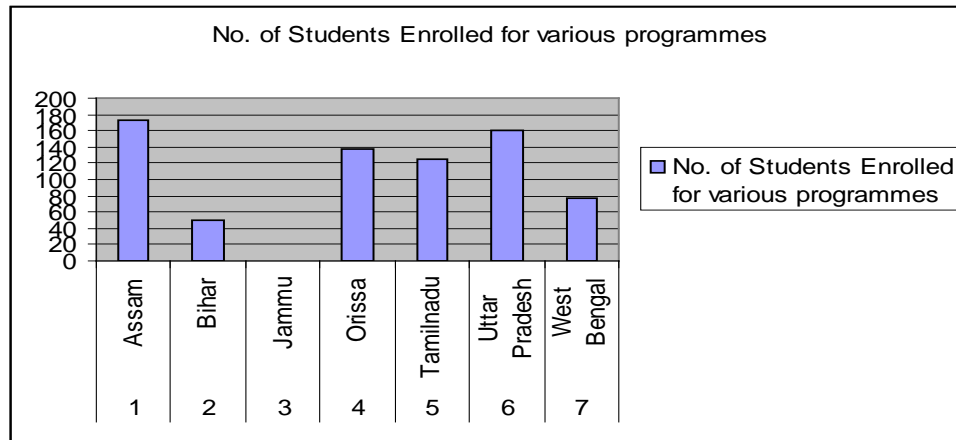
SNo	Programme	No. of Students
1	Diploma in Advanced Computing (DAC)	535
2	Certificate in HTML	75
3	Certificate in Javascript	76
4	Certificate in SQL (CSQ)	10
5	Certificate in Flash (CFL)	26



Statewise Enrollment of the Students

Table 2: Statewise Enrollment

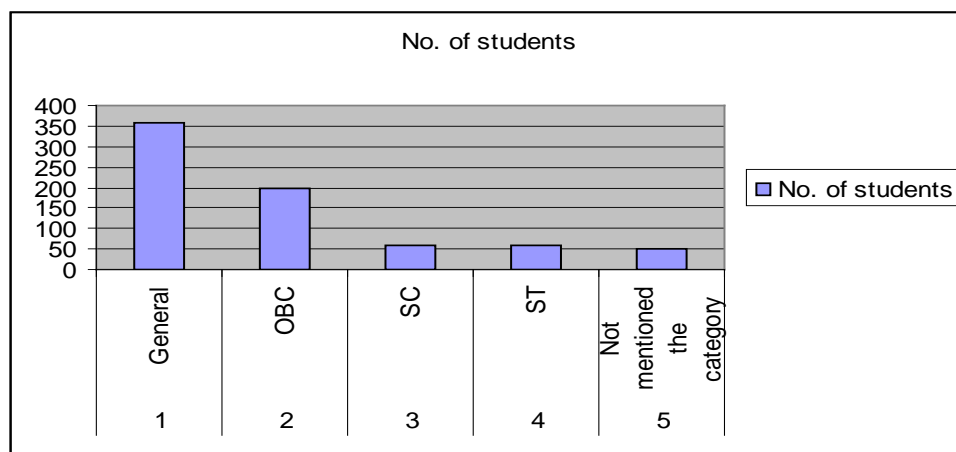
SNo	State	No. of Students Enrolled for Various programmes
1	Assam	172
2	Bihar	50
3	Jammu	0
4	Orissa	138
5	Tamilnadu	124
6	Uttar Pradesh	161
7	West Bengal	77



Categorywise Enrollment of the students

Table 3: Categorywise Enrollment

SNo	Category	No. of students
1	General	356
2	OBC	200
3	SC	57
4	ST	59
5	Not mentioned the category	50



Conclusion

In this paper we had elaborately discussed the implementation details of the project, respective roles of RIVET-EZ of IGNOU and SAHAJ, registration and evaluation process. These kinds of programmes should be thought of offering all over India from the existing all the CSCs. Also, other short term vocational programmes which can earn bread and butter for the students who are staying in the rural areas should be identified and offered through this mode.

References

1. www.ignou.ac.in
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Acknowledgements

1. Mithun Datta Senapathi, System Administrator, eGyankosh, IGNOU, New Delhi.
2. ajay Pratap Singh, Sr. Software Engineer, eGyankosh, IGNOU, New Delhi.
3. Gautam Choudhury, Head, Sahaj Academy, Srei Sahaj e-Village Limited, Kolkatta.
4. Ravindra Mandapaka, Vice President, IT & E-Learning, Srei Sahaj e-Village Limited, Kolkatta.
5. Raghava Kumar , AVP, IT, Srei Sahaj e-Village Limited, Kolkatta.
6. Subhashis Pattadar, Project Manager, eLearning, Srei Sahaj e-Village Limited, Kolkatta.